

REMARKS

An excess claim fee payment letter is submitted herewith for 9 additional claims.

Claims 1-29 are all the claims presently pending in the application. Claims 1-19 are amended to more clearly define the invention and claims 20-29 are added. Claims 1, 8, 11, 16, and 19 are independent.

These amendments are made only to more particularly point out the invention for the Examiner and not for narrowing the scope of the claims or for any reason related to a statutory requirement for patentability.

Applicant also notes that, notwithstanding any claim amendments herein or later during prosecution, Applicant's intent is to encompass equivalents of all claim elements.

Applicant gratefully acknowledges that claims 13-15 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, Applicant respectfully submits that all of the claims are allowable.

Claims 11-12 and 16-19 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Barker (U.S. Patent No. 2001/0023429). Claims 1-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Barker in view of Yamane Kazuyoshi (JP No. 08-213961).

These rejections are respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

A first exemplary embodiment of the claimed invention, as defined by independent claim 1, is directed to a data distribution satellite communication system that includes a communication

satellite, and a plurality of satellite communication terminals enabled to receive a signal from the communication satellite. The data distribution satellite communication system provides, from the communication satellite to the plurality of satellite communication terminals, distribution business for a data signal in a broadcasting fashion. The system further includes a satellite earth station for carrying out a principal communication via the communication satellite, a data distribution center, connected to the satellite earth station, for distributing the data signal to the communication satellite, and return communicating means for enabling the data distributing center to receive a data request signal from the satellite communication terminals. The data request signal includes a code indicative of an emergency level of data distribution.

A second exemplary embodiment of the claimed invention, as defined by independent claim 8, is directed to a satellite communication educational institution that includes a communication satellite, a plurality of satellite communication terminals each enabling to receive a signal from the communication satellite, a satellite earth station for carrying out a principal communication via the communication satellite, and a data distribution center connected to the satellite earth station by a communication channel. The data distribution center includes an electronic library for storing collected information in an electronic form. The electronic library presenting stored contents to users of the satellite communication terminals to submit retrieval of the users. The electronic library supplying information requested in accordance with a data request signal from the users. The data request signal includes a code indicative of an emergency level of data distribution.

A third exemplary embodiment of the claimed invention, as defined by independent claim

11, is directed to a method of distributing data in accordance with requests from a plurality of users. The method includes storing information in an electronic form to publish a list of its contents on a home page of a data distribution center, connecting each of the users with the home page of the data distribution center to retrieve available information, and transmitting, from the users, a data request signal to the data distribution center if there is information desired on the basis of a result of retrieval. The data request signal designates an allowable waiting time interval until data is distributed. The method further includes distributing, in the data distribution center, data requested by the data request signal, to the plurality of users via a communication satellite within the allowable waiting time interval designated by the data request signal.

A fourth exemplary embodiment of the claimed invention, as defined by independent claim 16, is directed to a data distribution system that includes a communication satellite, a plurality of satellite communication terminals for enabling to receive a signal from the communication satellite, a satellite earth station for carrying out a principal communication via the communication satellite, a data distribution center connected to the satellite earth station by a communication channel, and a data communication network for connecting the data distribution center and a database for information collection. The data distribution center includes an electronic library for storing collected information in an electronic form, said electronic library presenting stored contents to users of the satellite communication terminals to submit retrieval of the users. The electronic library supplying information requested in accordance with a data request signal from the users. Each satellite communication terminal includes means for transmitting a data request signal with a time limit to the data distribution center. The data

distribution center further includes means for distributing, in response to the data request signal from each satellite communication terminal, desired data to the satellite communication terminals via the satellite earth station and the communication satellite within the time limit designated.

A fifth exemplary embodiment of the claimed invention, as defined by independent claim 19, is directed to a data distribution method in a data distribution system that includes a communication satellite, a plurality of satellite communication terminals for enabling to receive a signal from the communication satellite, a satellite earth station for carrying out a principal communication via the communication satellite, a data distribution center for connecting the satellite earth station by a communication channel, and a data communication network for connecting the data distribution center and a database for information collection. The data distribution center includes an electronic library for storing collected information in an electronic form. The electronic library presenting stored contents to users of the satellite communication terminals to submit retrieval of the users. The electronic library supplies information requested in accordance with a data request signal from the users. The data distribution method includes transmitting, from each satellite communication terminal, a data request signal with a time limit to the data distribution center, and distributing, from the data distribution center, in response to the data request signal from each satellite communication terminal, desired data to the plurality of satellite communication terminals via the satellite earth station and the communication satellite within the time limit designated.

Some conventional data distribution systems distribute data instantly in response to a

request from a user. However, these systems have problems that are related to right restrictions placed upon available quantities of data, the high cost of transmitting a large amount of data and the difficulty of providing such a high amount of data interactively.

In stark contrast to these conventional data distribution systems, the present invention allows a user to send a data request that indicates a time interval within which the data may be transmitted to the user or an emergency level for transmitting that data. In this manner, the present invention provides the ability to transmit the data to the user at a time, which is less costly and makes better use of available bandwidth. The present invention further takes advantage of the fact that a plurality of users may be grouped together to simultaneously receive the same data.

II. THE PRIOR ART REJECTIONS

A. The 102(e) Barker et al. reference rejection

Regarding the rejection of claims 11-12, and 16-19, the Examiner alleges that the Barker et al. reference teaches the claimed invention. Applicant submits, however, that there are elements of the claimed invention which are neither taught nor suggested by the Barker et al. reference.

The Barker et al. reference does not teach or suggest the features of the present invention including a data request signal from a user (or plurality of users) that designates an allowable waiting time interval until the data is distributed (claim 11); and distributing data within the time designated within a data request signal from the users (claims 16 and 19).

Firstly, the Examiner alleges that the content provider 11 and the Internet 12 that are disclosed by the Barker et al. reference corresponds to the data distribution center recited by the claims. In particular, the Examiner cites Figs. 1-2 and the content provider 11 and the Internet 12 as allegedly supporting the Examiner's allegation that the Barker et al. reference discloses "storing information in an electronic form to publish contents on a home page of a data distribution center."

~ Rather, as shown in Fig. 2 of the present application, the content provider corresponds to the sender 60 and the Internet corresponds to the ground communication network 70. Neither of the content provider 60 or the Internet 70 corresponds to the data distribution 30 in accordance with the present invention.

In contrast to the present invention, the Barker et al. reference discloses a content provider 11, the Internet 12 and a network operations center 13. The Barker et al. reference clearly explains that content from the content provider 11 is sent to the network operations center 13 and stored there for distribution by the network operations center based upon a schedule provided by the content provider [0026 - 0027]. Therefore, it is the network operations center 13 and not the content provider 11 and the Internet 12 that distributes the data. Thus, contrary to the Examiner's allegations, the content provider 11 and the Internet 12 do not correspond to the claimed data distribution center.

Secondly, contrary to the Examiner's allegation, the Barker et al. reference does not teach or suggest a data request signal from a user that designates an allowable waiting time interval. The Examiner cites page 3, paragraph [0043] in an attempt to support the Examiner's allegation

that the data request signal from a user designates an allowable waiting time interval. However, contrary to the Examiner's allegation, page 3, paragraph [0043] explains that an "ad-hoc scheduling" allows a client (i.e. content provider) "to send content to the network operations center 13 and know that it will be broadcast within any suitably agreed to amount of time."

This is also explained at page 2, paragraphs [0026] and [0027] in the Barker et al. reference. "The software module 31 of the publishing element 25 is configured to allow the content provider to schedule content feeds and ad-hoc feeds (i.e. emergency or unplanned broadcasts)." (Emphasis added). "Content may be submitted in real-time or ahead of time which allows the content to be stored on the network operations center 13 and forwarded to client personal computers 16 at the designated time."

Therefore, the time interval that designates a waiting time interval for distributing data that is disclosed by the Barker et al. reference is based upon a broadcast request from a content provider, not a user.

Although, the Barker et al. reference appears to disclose the ability to subscribe to data/content broadcasts, the Barker et al. reference does not teach or suggest a data request signal from a user that designates an allowable waiting time interval.

Rather, the Barker et al. reference explains that the content provider 12 may forward content for storage at the network operations center along with instructions that designate when the content is to be broadcast by the network operations center. This schedule is then published by the network operations center. Specifically, the Barker et al. reference explains that the network operations center includes "a content distribution engine 33 generates program

schedules and relays the information to the data broadcast system 34 which broadcasts announcements of schedule.” [0029].

The Barker et al. reference then explains that each client computer 16 includes a client software module 41 that receives the announcements of the program schedules from the data broadcast system. [0032]. The client software module 41 uses these program schedules for use in subscribing to receive the content.

Therefore, the Barker et al. reference clearly explains that it is the content provider 11 that determines when the content is to be broadcast and within which “window” of time (i.e. waiting time interval) and not the user. Rather, the Barker et al. reference clearly explains that the user is only capable of “scheduling” the receipt of the broadcast content based upon the broadcast time designated by the content provider 11.

Thus, the Barker et al. reference does not teach or suggest the features of the present invention including a data request signal from a user (or plurality of users) that designates an allowable waiting time interval until the data is distributed (claim 11); and distributing data within the time designated within a data request signal from the users (claims 16 and 19). As explained above, these features are important for providing the ability to transmit the data to the user at a time, which is less costly and makes use of available bandwidth better and which takes advantage of the fact that a plurality of users may be grouped together to simultaneously receive the same data.

Therefore, the Barker et al. reference does not teach or suggest each and every element of the claimed invention. Therefore, the Examiner is respectfully requested to withdraw this

rejection of claims 11-12 and 16-19.

B. The Barker et al. reference in view of the Kazuyoshi reference

Regarding claims 1-10, the Examiner alleges that the Kazuyoshi reference would have been combined with the Barker et al. reference to form the claimed invention. Applicant submits, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

Applicant submits that these references would not have been combined as alleged by the Examiner. Indeed, the references are directed to completely different matters and problems.

Specifically, the Barker et al. reference is directed to providing a data distribution system and method that uses Internet Protocol (IP) services to distribute data to personal computers and to a data distribution system that packages data along with instructions for broadcasting and processing by a remote computer that receives the package [0004].

In stark contrast, the Kazuyoshi reference is specifically directed to the problems of incorporating unnecessary information into the memory of a pager [0004], and avoiding an increase in communication traffic that results from multiple users submitting data requests [0005].

One of ordinary skill in the art who was concerned with providing a data distribution system that uses IP services to distribute data or that packages data along with broadcasting and processing instructions as the Barker et al. reference is concerned with addressing would not have referred to the Kazuyoshi reference because the Kazuyoshi reference is directed to the

completely different and unrelated problems of incorporating unnecessary information into the memory of a pager and avoiding increased communication traffic that results from multiple users submitting data requests.

Further, Applicant submits that the Examiner can point to no motivation or suggestion in the references to urge the combination as alleged by the Examiner.

The Examiner alleges that it would have been obvious to "one of ordinary skill in the art at the time invention (sic) was made to modify Baker (sic) system by the teaching of Yamane (sic) on the information service system data with key code on the quick service (immediately report) or none-immediately report required thereto in order to provide user (sic) with flexible choices."

The key code that is disclosed by the Kazuyoshi reference has absolutely nothing to do with indicating an emergency level of data distribution. Rather, the Kazuyoshi reference discloses a service key code for a pager and news/information service distribution system that determines how much detail is stored locally at the pager. In other words, the key code that is disclosed by the Kazuyoshi reference only determines how much data is stored and does not have anything at all to do with when the data is broadcast to the pager.

In particular, the Kazuyoshi reference discloses a service code registry for various information services in Figure 3. This service code registry indicates the correspondence between a particular key code, the source of service and how much of the information that is broadcast from a particular service is stored. For example, the key code "001" indicates that only the title data from a news information service is stored, while the key code "101" indicates that

detailed information from a news information service is stored. Selected ones of these key codes are stored in the service code memory 16. [0023]. In this manner, the user of the pager indicates the service centers from which the user wants to receive data/information and whether the user only wants to receive a low amount of data from a selected source (i.e. the title or outline data) or whether the user wants to receive and store a larger amount of data from a selected source (detailed content).

Figure 4(a) indicates the format of the data that is transmitted from the service centers. The format includes a title section 21-1 and a content section 21-2. The title section 21-1 includes a service key code 21-1a, a request key code 21-1b, and a title field 21-1c. The content section 21-2 includes a service key code 21-2a and the detailed content field 21-2b. [0025]

The Kazuyoshi reference gives two examples of data sets that may be transmitted from the information service centers in Fig. 4(b). In this example, both sets of data originate from the news service (as indicated by the service key codes "001" and "101"). [0026-0032].

The Kazuyoshi reference explains with reference to the flow chart shown in Fig. 6 that the service centers broadcast data sets to multiple addresses at a time which is not congested at step S1 [0043]. An example of these data sets is shown in Fig. 4(b). The pager then receives the data and determines whether the service key codes that are present in the data sets match those service key codes that are stored in the service code memory 16 at step T3 [0044].

If the service key codes in the data set does not agree with those stored in the service code memory, then the pager ignores the data and returns to the waiting state at step T4. [0045].

However, when the service key codes in the data set match those stored in the service

code memory, then the pager stores the data that corresponds to the service key code at step T5. [0046].

Later, at the pager user's convenience, the pager may be operated to display the data that was stored as shown in Fig. 5. In the left display of Figure 5(a), the title data is listed for each data set and the user may then determine whether the user wants to view the detailed data that corresponds with a title data by selecting the title data.

If the pager stored the detailed data previously because the service code memory indicated that the detailed data should store the detailed data, then the user is immediately presented with the corresponding detailed data as illustrated in the right side display of Fig. 5(a).

If, however, the pager did not store the detailed data previously because the service code memory did not include a service code that indicated that detailed data should be stored from that information source, then the pager may then use the request code (21-1b in Fig. 4(a)) to immediately request the detailed data from the data source.

Therefore, contrary to the Examiner's allegation, the key codes that are disclosed by the Kazuyoshi reference are only relevant for indicating how much (if any) data from a data source is stored in response to a broadcast of that data by the data source. The service key codes that are disclosed by the Kazuyoshi reference have absolutely nothing to do with determining an emergency level of distribution.

Moreover, even assuming arguendo that one of ordinary skill in the art would have been motivated to combine these references, the combination would not teach or suggest each and every element of the claimed invention.

As explained previously, the Barker et al. reference does not teach or suggest the features of the present invention including a data request signal from a user (through, for example, a satellite communication terminal) that designates an emergency level of data distribution. This feature is important for providing the ability to transmit the data to the user at a time, which is less costly and makes use of available bandwidth better and which takes advantage of the fact that a plurality of users may be grouped together to simultaneously receive the same data.

The Kazuyoshi reference does not remedy these deficiencies of the Barker et al. reference.

Lastly, regarding the means plus function recitations, the Examiner has failed to interpret the claims to read only on the structures or materials disclosed in the specification and “equivalents thereof.” The Federal Circuit has made it clear that the Office is required to interpret means plus function language in accordance with 35 U.S.C. § 112, sixth paragraph (see M.P.E.P. §2106; *In re Donaldson*, 16 F.3d 1189, 1193 (Fed. Cir. 1994) and *In re Alappat*, 33 F.3d 1526, 1540 (Fed. Cir. 1994)). Clearly, the Examiner has failed to interpret the claims to read only on the structures or materials disclosed by the present specification and “equivalents thereof.”

Therefore, the Examiner is respectfully requested to withdraw the rejection of claims 1-10.

III. FORMAL MATTERS AND CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully submits that claims 1-29, all the claims presently pending in the Application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the Application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

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